

VIII. Extract of a Letter from Mons^r de L'Isle to Mr. Nettleton, containing the actual Mensuration of the Basis proposed p. 42. Translated from the French by T. S. M. D. F. R. S.

Petersbourg, May 14, 1737.

SIR,

*** SINCE my last to you, I undertook to measure the Basis which I speak of in Page 42 of this *Transaction*, and had the good Fortune to measure very exactly on the Ice, by taking the precise Distance between her Imperial Majesty's Castle at *Peterhoff*, and the Castle of *Doubki*, situate opposite to it, on the Coast of *Finland*. I found the Distance between the opposite Walls of these Castles to be 74,250 Feet *English*. This Basis, being much greater than any of those employ'd hitherto for this Purpose, gives room to expect great Exactness in the whole Work, when it shall be carried on in the same Manner. It will at once serve to make a very exact Map of the Bottom of the Gulph of *Finland*. 'Tis for the same Design, and for better ordering the Charts of the Coasts of the *Baltick*, that I intend (as soon as my Project shall be approved here in its full Extent) to begin to measure my Triangles along the Coasts of *Ingria* and *Livonia*, to the Islands of *Dagho*, *Oefel*, &c. And to the end that the Charts of the Places taken in by these Triangles may be finish'd at the same time, I shall take with me all the Charts

Charts of these Parts, which can be had, in order to verify and correct them in my Way. According as these Charts are thus finish'd in the best Manner, they may be engraved. I likewise intend to publish, as soon as possible, all the Operations and Observations I shall have made in my Expedition ; that thus early Benefit may be reap'd from them, and that the Publick, at the same time the Charts come out, may be acquainted with the Foundation on which they are constructed. I once thought to have by this time printed the whole Detail of my Operations in taking the Basis, that is, of the Precautions I used in ascertaining it; but as it was measured in *English* Feet, which I have a Desire to reduce to this Country Measure, and that 'tis requisite to consult the original Standards here on this Head, which I have not as yet been able to procure; for these Reasons, I am obliged to delay the Publication of these first Observations. * * *